

**Energy Efficiency Study Committee
November 13, 2007**

Preliminary Results for the Iowa Utilities Board Energy Efficiency Study

A. Investor-owned utilities energy efficiency results

1. Electric energy efficiency

- New IOU electric energy efficiency MWh savings in 2006 amounted to 270,000 MWh, or 0.8% of total IOU retail MWh sold in 2006.
- Total IOU electric energy efficiency savings in 2006 amounted to 1.9 million MWh – an amount that includes cumulative (ongoing) savings from energy efficiency measures installed in previous years. These ongoing savings are approximately 6% of total 2006 retail MWh.
- IOU new energy efficiency MWh savings more than doubled from 2002 to 2006.
- IOU programs saved about 1,000 peak MW in 2006, evenly divided between energy efficiency peak MW and load management peak MW.
- The peak MW savings equal 9 “peaker” power plants of 110 MW, about the size of the MidAmerican River Hills plant in downtown Des Moines.

2. Natural gas energy efficiency

- IOU new gas energy efficiency technologies (“energy efficiency measures”) saved about 860,000 MCf in 2006.
- IOU natural gas savings from ongoing plus new measures (cumulative) saved almost 8 million MCf per year in 2006. This is enough gas to heat about 100,000 average Iowa homes.

Table 1: IOU 2006 Energy Efficiency Programs – Cost-Effectiveness.

IOU Program Types	Societal Benefits (\$ Million)	Societal Costs (\$ Million)	Societal Net Benefits (\$ Million)	Societal B/C Ratio
Electric LM <i>load management*</i>	486	240	245	2.02
Electric EE	216	96	120	2.24
Gas EE	82	50	32	1.63
All LM + EE	784	387	397	2.03

3. IOU energy efficiency programs – highlights

- Three IOU nonresidential electric energy efficiency programs saved more than one-half of the MWh and nearly one-half of the MW in 2006.
- Four of the IOU natural gas energy efficiency programs saved nearly one-half of the natural gas MCf in 2006. All four programs with large results involved residential customers.
- The levelized cost (Societal) for electric energy efficiency ranged from \$0.01 to \$0.05 per kWh. Levelized cost (Societal) is the calculation of the present value of the extra (incremental) costs customers paid to install energy efficiency measures plus the IOU administrative costs, divided by the units of energy saved over the lives of the energy efficiency measures.
- The levelized cost (Societal) for natural gas energy efficiency ranged from \$0.05 to about \$1.46 per therm. Some gas programs showed much higher or lower levelized costs, but little savings in gas and no benefits.
- Load management programs produced the greatest number of MW savings in 2006 with 500 MW of peak electric capacity subscribed by customers for potential interruption. Interruptible customers were called on four times by Alliant/IPL and four times by MidAmerican to shed load during the summer of 2006. Alliant/IPL in 2006 had 154 customers enrolled in its interruptible program and

MidAmerican had 135 participants. Most customers are large industrial or commercial operations.

Table 2: IOU Energy Efficiency Spending for 2006.

Spending for 2006 in \$	Alliant/ IPL	MidAmerican Energy	Aquila, Inc.	Atmos Energy	Totals
Electric EE	19,100,000	18,000,000	NA	NA	37,100,000
Electric LM	24,600,000	10,700,000	NA	NA	35,300,000
Gas EE	8,300,000	17,200,000	4,000,000	40,000	29,500,000
Other	2,000,000	2,300,000	300,000	NA	3,600,000
Totals	54,000,000	48,200,000	4,300,000	40,000	106,500,000

B. Municipal and REC energy efficiency results

1. Electric and natural gas energy efficiency

REC Results in 2006	Muni Results in 2006
Electric EE MWh = 177,000 MWh per year	Electric EE MWh = 171,000 MWh per year
Electric Peak MW = 368 MW	Electric Peak MW = 407 MW
Gas EE = 86 MCf for one REC with gas service	Gas EE = 14,000 MCf (NEW ONLY) for 51 Municipal gas utilities

2. Municipal and REC energy efficiency program highlights

- Plan information and results are filed biennially with the IUB.
- Programs by RECs and Municipals are voluntary.
- Approval of programs is local.
- Incentives are part of each utility's operating budget.
- RECs spent about \$11.7 million in 2006.
- Municipals spent about \$3.8 million in 2006.